

## REMARKS

Claims 7, 13, and 16-19 are pending in this application.

Claim 7 is amended to recite --full complement-- in lieu of "complement." and to include the limitation "wherein said pair of DNA molecules produce an amplicon of SEQ ID NO:9". Support for the amendment is in the specification at page 5, lines 3-4.

Claim 13 is amended herein to recite that the DNA molecule comprises -- **the** nucleotide sequence -- in lieu of "a nucleotide sequence" as suggested by the Examiner at page 7, point 7, of the Office Action mailed February 23, 2006. The claim is also amended to recite -- full complement -- in lieu of "complement."

Claim 16 is amended to claim a DNA molecule that is homologous or complementary to nucleotides 365-1183 of SEQ ID NO:8. Basis for the amendment can be found, for example, in the Sequence Listing and the original claims.

### **Claim Rejections – 35 U.S.C. § 102(b)**

Claim 13 is rejected under 35 U.S.C. § 102(b) as being anticipated by Sigma Catalog (*Molecular Biology Products*, oligonucleotides, page 1565, 1997). According to the Examiner, since the claim recites "a nucleotide sequence," it is treated as having fragments readable on the hexanucleotide sequences taught by the Sigma Catalog. In response, Applicants amend claim 13 to read --the nucleotide sequences-- and --full complements—in lieu of "complements." In view of the amendment, claim 13 should not be treated as having fragments readable on any of the hexamer sequences. Accordingly, amended claim 13 should overcome the rejection under 35 U.S.C. § 102(b) and be in condition for allowance.

Claims 16-19 are rejected under 35 U.S.C. § 102(e) as being anticipated by Barry *et al.* (USPN 6,448,476). According to the Examiner, base pairs 163-364 of SEQ ID NO:8 are

identical to base pairs 1-202 of SEQ ID NO:27 taught by Barry *et al.* In response, Applicants amend claim 16 to read “365-1183 of SEQ ID NO:8.” This defined region of SEQ ID NO:8 is free of the homologous fragments positioned 1-202 of SEQ ID NO:27 as disclosed in Barry *et al.* Because the DNA detection kit of claim 16 does not contain elements homologous to the sequence of SEQ ID NO:27 in Barry *et al.*, claim 16 is patentably distinguishable from the DNA kit disclosed in Barry *et al.*

Claims 17-19 are also rejected under 35 U.S.C. § 102(e) as being anticipated by Barry *et al.* (USPN 6,448,476). According to the Examiner, Barry *et al.* teach a pair of DNA molecules that are at least 18-30 nucleotides in length. Barry *et al.* also teach a sequence that is 202 base pairs in length (from SEQ ID NO:27) that aligns with base pairs 163-364 of SEQ ID NO:8. In response, Applicants respectfully point out that claims 17-19 as presented do not pertain or relate to SEQ ID NO:8 or any fragments thereof. Claim 17 depends on claim 7 which pertains to a pair of DNA molecules of SEQ ID NO:7 and not SEQ ID NO:8, and thus its rejection under 35 U.S.C. § 102(e) is moot.

#### **Claim Rejections – 35 U.S.C. § 103(a)**

Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Barry *et al.* (USPN 6,448,476) in view of Strittmatter *et al.* (*Nucleic Acids REs*, Vol. 12, pp. 7633-7647, 1984, Accession No. X 86563), and Buck *et al.* (*Biotechniques*, Vol. 27, No. 3, pages 528-536, 1999).

According to the Examiner, it would have been *prima facie* obvious to a person of ordinary skill in the art at the time the invention was made to use the known sequences as taught by Barry *et al.*, with a DNA sequence as taught by Strittmatter *et al.*, as a step to generating primers and primer pairs to amplify a target nucleotide sequence designed based on known target

sequences. Barry *et al.* teach a known sequence of an insert DNA molecule having at least 11 contiguous sequences of SEQ ID NO:7, and Strittmatter *et al.* teach a DNA molecule of maize genome to form a pair of DNA molecules. In response, Applicants amend claim 7 to recite the limitation “wherein said pair of DNA molecules produce an amplicon of SEQ ID NO:9”. There is no suggestion in Barry *et al.* or Strittmatter *et al.* to teach a person skilled in the art to combine a primer sequence homologous to nucleotide positions between 1-101 of the claimed SEQ ID No 27 of patent 6,448,476 (homologous to 325-425 of claimed SEQ ID NO:7) with another primer sequence that is homologous to genomic maize sequence of Strittmatter *et al.* so as to function as DNA primers or probes diagnostic for DNA extracted from corn plant PV-ZMGT32(nk603) and to produce SEQ ID NO:9. There is no indication or suggestion or motivation in the above-identified references for a person skilled in the art to design a primer pair, the first primer from this particular location in the maize genome (corresponding to base pairs 1-304 of SEQ ID NO:7) and the second primer from sequences taught by Barry et al. so as to function as probes diagnostic of plant PV-ZMGT32(nk603).

The Examiner also indicates that the rejection of claim 7 under 35 U.S.C. § 103(a) is made based on the phrase “complements thereof.” The Examiner states: “The following rejections are made based on the phrase 'complements thereof' which is given the broadest reasonable interpretation as fragments of the claimed DNA molecules, because [of] the recitation of the phrase 'thereof'” (*see* Office Action dated February 23, 2006, at page 4, before point 5). In response, Applicants amend claim 7 to recite “full complements” in lieu of “complements.” This amendment should overcome the interpretation of the word “complement” as encompassing fragments. In view of the amendments, claim 7 should overcome the rejection under 35 U.S.C. § 103(a) and be in condition for allowance.

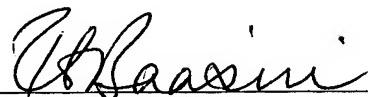
Under section "Response to Arguments" of the Office Action, the Examiner states that Applicants' amendment to claim 13 of the response filed December 6, 2005 was not found persuasive so as to overcome the rejection under 35 U.S.C. § 112, second paragraph. According to the Examiner, the claim recites "a nucleotide sequence" which is considered as fragments of sequences having said sequences. The Examiner indicated that an amendment to recite "the nucleotide sequence" would obviate the rejection. In response, Applicants amend claim 13 to read "the nucleotide sequence" in lieu of "a nucleotide sequence."

Should any questions arise or if Applicants or Applicants' attorney can facilitate the examination of this application, it is respectfully requested that the PTO contact the undersigned attorney.

**Fees**

A request for a three-month extension of time and the authorization for the associated fee are filed concurrently with this paper. However, should any other fees under 37 C.F.R. §§ 1.16-1.21 be deemed necessary for any reason relating to this document, the Commissioner is hereby authorized to deduct the fees from Howrey LLP Deposit Account 08-3038/11899.0221.NPUS01.

Respectfully submitted,



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